Aryan Jairath

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EDUCATION

Rutgers University-New Brunswick   Piscataway, NJ
Bachelor of Science in Computer Science and Data Science   *Sept. 2021 – May 2025*
- Rutgers University School of Arts and Science Honors Program
- GPA: 3.95/4.00
- Relevant Coursework: Data Structures and Algorithms, Computer Architecture, Software Methodology, Principles of Data Management, Design and Analysis of Computer Algorithms, Discrete Structures I/II, Principles of Programming Languages, Physics I/II, Calculus I/II, Linear Algebra, Data Management for Data Science
- Clubs/Organizations: Rutgers University Security Club, Data Science Club, IDEA Program

EXPERIENCE

Software Engineer Intern   June 2023 – Present
Fannie Mae   *Reston, VA*
- Used **DBeaver** to test **PostgreSQL** query performance through AWS **Redshift** saving **10 hours** per execution
- Worked with **Spring Boot** and **Angular** in Social Score Calculator webapp; improved error handling by **20%**
- **AWS** environment, implementing **SageMaker** for advanced data modeling; improved single-family prediction accuracy by **40%** for stakeholders, resulting in optimized resource allocation and increased revenue potential.
- Created decision trees to compare Dask, Pandas, Spark, and Polars based on cost and performance for utilization
- Created a **PowerAutomate** flow in Microsoft PowerApps to conduct the transfer of files from Sharepoint to S3.
- Used tools such as **JIRA** and performed unit testing with **JUnit** to validate applied logic and edge cases.

Teaching Assistant   May 2020 – Aug. 2020
Genesis Code   *Plainsboro, NJ*
- Taught lessons plans with **50+** students pivotal Java concepts such as polymorphism, inheritance, and encapsulation; also assigned a JavaFX game development project
- Reinforced concepts with limited computer access through exercises such as determine the output and big O analysis depending on experience; over **75%** of the cohort passed Data Structures certification exam

PROJECTS

Portfolio-Website | *JavaScript, JSX, React, HTML, and CSS*   June - Present
- Developed a personal portfolio website using **React** components and props, components styled in **CSS**
- Optimized for mobile, tablet, and desktop devices for reachability: **10+** weekly visitors
- Applied **Gaussian blurring** attributes to navigation bar and UI elements for improved aesthetic and layout

TuitionManager | *Java, JavaFX, XML, and SceneBuilder*   January - March 2023
- A college tuition manager for enrolling students saves **20+ hours** weekly compared to traditional SQL data entry
- Used core OOP concepts such as **inheritance, polymorphism, encapsulation, and data persistence** to represent the tuition due for a student; tuition varies on type of student (resident of the US or foreign)
- Created a GUI for easy interaction, tested backend code through blackbox-testing using **JUnit**

Android Weather App | *Java, JSON*   August - October 2021
- Called **OpenWeatherAPI** and received data in **JSON**, called data using Input Stream
- Used an **AsyncTask** to enable the UI to alter in real-time based on the weather and time of day
- Utilized **Apache Maven** to automate build for deployment towards the end of production

PaintProgram with GUI | *Java, XML*   February 2021
- Drawing application where user can pick pen size, color, make predefined shapes draw with mouse/touchscreen
- Filechooser lets user save a drawing or upload an old one to continue working on: saved on respective file system
- Menu bar buttons to redo, undo, and free draw all extend **abstract class** to prevent reuse of **800 lines** of code

TECHNICAL SKILLS

General: Object-Oriented Programming, Mobile Application Development, Agile Software Development Life Cycle
Languages: Java, Python, C/C++, MySQL, OCaml, R, Kotlin, JavaScript, XML, HTML, CSS, LaTeX
Frameworks: Spring Boot, Angular, React, Node.js, Ruby on Rails
Developer Tools: Git, VS Code, Android Studio, PyCharm, IntelliJ, Eclipse, JUnit, Maven, Gradle, Docker
Libraries/API: JavaFX, JDBC, pandas, NumPy, Matplotlib